

		USQ #04-1980-AA
CH2M HILL Hanford Group, Inc.	Manual	Business Services
	Document	TFC-ESHQ-IH-STD-10, REV A
INDUSTRIAL HYGIENE RESPONSE	Page	1 of 3
TO EMPLOYEE CONTACT WITH	Issue Date	November 8, 2004
CHEMICAL WASTE	Effective Date	November 15, 2004
FUNCTIONAL AREA MANAGER:		T. J. Anderson
DOCUMENT OWNER:		M. T. Hughey

## 1.0 PURPOSE AND SCOPE

(5.1.1)

This standard describes an industrial hygienist's appropriate response to employee contact with chemical waste. This standard applies to all Tank Farm Contractor (TFC) personnel and subcontractors doing work in the 200 East Area, 200 West Area, and 600 Area controlled by TFC.

This standard is applied when the TFC shift manager directs implementation of TF-AOP-011 and requests industrial hygienist support in response to any unplanned spill or release of radioactive material, hazardous material, dangerous waste, material that becomes a waste as a result of the event (product that is not recoverable) or mixed waste.

## 2.0 IMPLEMENTATION

This standard is effective on the date shown in the header.

## 3.0 STANDARD

1. To adequately assess the potential hazards of a situation, the industrial hygienist shall obtain the following facility/area information as soon as possible:
  - Facility/area drawings that show the physical layout of the building and/or area involved (if not already familiar)
  - Current information for facility/area hazards (e.g., type of hazard, location of hazard, quantity (amount) of hazard, etc.)
  - Chemical information for container contents, including:
    - Type of chemical(s)
    - Location and quantity
    - Health hazards
    - Chemical and physical properties (hazards):
      - Flammability
      - Toxicity
      - Reactivity (incompatibilities)
      - Corrosiveness.
    - Materials used within the facility/area (refer to Material Safety Data Sheet (MSDS)) that the employee could have contacted. Be aware that a vapor event could develop with spill of chemicals.

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2. The industrial hygiene technician, under the direction of the industrial hygienist, and the health physics technician will work together to assess the nature (both chemical and radiological significance) and extent of the leak and/or spill to aid in determining the level of response and support that will be required. All hazard and facility/area information will be provided to the Occupational Medicine Contractor and the shift manager.
  
3. The industrial hygienist will direct the industrial hygiene technician to perform sampling or to conduct direct reading instrument monitoring, as necessary, to characterize the current and past (time the exposure occurred) exposure potential. Monitoring may include use of a multi-gas monitor, ammonia detector, organic vapor meter, and combustible gas meter. Refer to the direct reading monitoring procedure (TFC-ESHQ-S\_IH-D-22) or instrument-specific procedures for additional information. All monitoring results, site observations, weather conditions, and recommended actions will be recorded on the Industrial Hygiene Direct Reading Instrument Survey Form (A-6001-760) or an approved equivalent in accordance with HNF-IP-0842, Volume 9, Section 4.27.  
  
The industrial hygienist will inform the shift manager of monitoring results and assist the Hanford Fire Department Hazardous Material Response Team, as necessary. If the Hanford Fire Department Incident Commander assumes responsibility for the event and clean-up, the industrial hygienist will assume the role of Chemical Hazard Assessor.
  
4. Using monitoring results and observations, the industrial hygienist may recommend the appropriate controls to be used by personnel in the affected area. Recommendations may include increasing the level of respiratory protection or additional protective clothing. Refer to the personal protective equipment standard (TFC-ESHQ-S\_IS-C-02) and the respiratory protection procedure (TFC-ESHQ-S\_IH-C-05) for additional information.  
  
The industrial hygienist may also make recommendations for establishing controls for the type and duration of work in progress in the affected area.  
  
All results and recommendations will be communicated to the shift manager and to the Hanford Fire Department Incident Commander.
  
5. Under the direction of the shift manager or the Hanford Fire Department Incident Commander, the Industrial Hygienist will confirm that site conditions remain stable and vapors are within acceptable levels (below site-specific occupational exposure limits) for safe occupancy of the area.
  
6. The industrial hygienist will provide information to affected and potentially affected employees regarding chemical contact investigation findings and corrective actions implemented. Investigation results will be reported to staff members within fifteen days after the data is analyzed and a quality review of the data is performed

#### **4.0 DEFINITIONS**

No terms or phrases unique to this standard are used.

**INDUSTRIAL HYGIENE RESPONSE  
TO EMPLOYEE CONTACT WITH  
CHEMICAL WASTE****5.0 SOURCES****5.1 Requirements**

1. Management Directed.

**5.2 References**

1. HNF-IP-0842, RPP Administration, Volume 9, Section 4.27, "Exposure Monitoring, Reporting, and Records Management."
2. TF-AOP-011, "Response to Leaks or Spills of Contaminated/Hazardous Material."
3. TFC-ESHQ-S\_IH-C-05, "Respiratory Protection."
4. TFC-ESHQ-S\_IH-D-22, "Using Direct Reading Instruments."
5. TFC-ESHQ-S\_IS-C-02, "Personal Protective Equipment."